AMENDED CLAIMS
[Received by the International Bureau on 31 August 2005 (31.08.2005):
original claim 1 is amended ; original claims 2-5 are unchanged ; new claims 6 and 7 are added.]

1. (Amended) An evacuation apparatus comprising:

a first vacuum pump connected to a vacuum chamber; and

a second vacuum pump connected to said first vacuum pump;

wherein said first vacuum pump has a pair of multistage pump rotors; and

wherein said first vacuum serves as a booster pump for increasing a pumping speed of said second vacuum pump serving as a main pump.

2. An evacuation apparatus according to claim 1, wherein each of said multistage pump rotors has an inlet-side rotor and an outlet-side rotor, and an axial width of said inlet-side rotor is larger than an axial width of said outlet-side rotor.

3. An evacuation apparatus according to claim 1 or 2, wherein said first vacuum pump is started after said second vacuum pump is started.

4. An evacuation apparatus according to any one of claims 1 to 3, wherein a rotational speed of said multistage pump rotors is controlled based on a temperature of a gas delivered by said evacuation apparatus, a pressure of the gas, a temperature of a rotor casing for housing said multistage pump rotors, or electric current flowing into a motor for rotating said multistage pump rotors.

5. An evacuating apparatus according to any one of claims 1 to 4, wherein said first vacuum pump and said second vacuum pump are accommodated in a single enclosure.

6. (Added) An evacuation apparatus according to claim 1, wherein said second vacuum pump comprises a brushless DC motor.

7. (Added) A method of operating an evacuation apparatus having a booster pump connected to a vacuum chamber and a main pump connected to the booster pump, the booster pump having a pair of multistage pump rotors, said method comprising:

starting the main pump;

operating the main pump at a rated rotational speed;

starting the booster pump after a predetermined period of time has passed from said starting the main pump;

operating the booster pump at a constant rotational speed; and

when a pressure of a gas in the vacuum chamber is lowered to a predetermined pressure, increasing the rotational speed of the booster pump.